

ABSTRACT

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A hybrid cable comprising an optical fiber, an intermediate layer surrounding the optical fiber, and an electrically insulating jacket surrounding the intermediate layer. The intermediate layers include a collection of metallic strands. The hybrid cable may be used to establish simultaneous electrical and fiber-optic connection between two communication devices. Thus, the two communication devices may simultaneously transfer optical signals through the optical fiber and perform any of various electrical functions (power transfer, eye safety control) through the metallic strands. For example, an optical transceiver may couple to an optical antenna unit through the hybrid cable. Such an optical transceiver may serve as part of a point-to-point link, a point-to-multipoint link, and/or, a link between a primary transceiver unit and an optical router.